

FREEZE PROTECTION PLAN FOR BUILDING 891 OU 2 AND TRAILERS LOCATED AT THE 891 FIELD OPERATIONS YARD

1 0 INTRODUCTION

This Winter Freeze Protection Plan covers the actions required to freeze protect the 891 process equipment in case of a breakdown in the existing freeze protection system the pipes located at the OU 2 area and the trailers located at the 891 Field Operations Yard. The plan covers the actions required by D O E Order 4330 4A and RFP Site Wide Freeze Protection Plan 1 74000 WFPP 001

2 0 SITE DESCRIPTION

A groundwater collection and treatment facility was constructed as part of an Interim Measure/Interim Remedial Action (IM/IRA) at the 881 Hillside site Operable Unit No 1 (OU 1) at the Rocky Flats Plant. The groundwater at this site is contaminated with low levels of chlorinated solvents heavy metals and radionuclides and is treated in building 891.

OU 2 is a field treatability unit for treatment of surface water at OU 2. The water which is treated comes from South Walnut Creek. This is processed at OU 2 and returned into Walnut Creek after treatment is completed.

13 out of the 14 trailers located at the 891 field operations yard are used as offices to house the sub contractors and some EG&G personnel. The T891 Q trailer is used primarily as a showering facility.

3 0 ACTIVITIES REQUIRING EMERGENCY FREEZE PROTECTION RESPONSE

The 891 treatment processes contains above ground piping and outdoor water storage tanks. All above ground piping is insulated and heat traced to protect from freeze damage. Four (4) outdoor liquid storage tanks are also insulated and have submersible heaters to protect from freezing. Building 891 is heated by electric heaters and natural gas. The treatment process involves the use of sodium hydroxide (caustic) which begins to gel at temperatures below 50 degrees F. Non insulated pipes and tanks are also present in the building. All of the outdoor equipment is maintained above 32 degrees F to prevent freezing. Building 891 is maintained above 60 degrees F to prevent the caustic from clogging the process lines and at a minimum above 32 degrees F to prevent freeze damage. Building 891 and its associated tanks and piping is heated at all times to prevent freeze damage that would cripple the treatment process.

In the event that freezing does occur to the pipes located outside 891 the following steps are taken to resume normal operations

- 1 Power to heat trace around the pipes is restored as soon as possible
 - a. In the event of a power failure a diesel generator will be utilized to supply power for the building
 - b. Portable heaters are utilized to maintain a room temperature of 60 degrees in building 891
- 2 Pipes are drained and lines are emptied until power to heat trace is restored

In the event that freezing does occur to the 4 tanks located outside 891 building the following steps are taken to resume normal operations

- 1 Power to the immersion heater is restored as soon as possible
 - a. In the event of a power failure a diesel generator will be utilized to supply power for the building

Environmental Restoration/Facilities Operations Management (ER/FOM) currently has one work order opened for replacing the insulation on a backflow preventer located outside building 891. A close out date is still pending although we are hoping to complete the work by mid August

The OU 2 area treats surface water from North Walnut Creek and consists of 1 1/2 miles of above ground pipes that are insulated and heat traced. Also located in the area are 4 trailers. Three out of the four trailers have running water and require heating to prevent freezing. Pipes located outside the trailers are insulated and wrapped with heat trace. One trailer is currently used as an office has no running water and chemicals are stored in an acid cabinet. The power utilized to operate the heat trace and supply power for the electric heaters is currently supplied by a diesel generator.

In the event that freezing does occur to the lines located at the OU 2 area the following steps are taken to resume normal operations

- 1 An additional diesel generator is brought to the OU 2 area to supply power as soon as possible
- 2 Pipes are drained and lines are emptied until power to heat trace is restored

Thirteen out of the fourteen trailers located at the 891 fields operations yard are used as

offices for the contractors and some EG&G personnel and the one remaining trailer is used as a shower area. The potential for freezing occurring in thirteen out of the fourteen trailers located at the 891 field operations yard is not likely since no running water is allowed in any of them.

The only trailer that is susceptible to freezing is the T 891 Q trailer. This has water hauled in and out for showering. The feed lines are insulated and have heat trace wrapped around them to protect them from freezing.

In the event that freezing does occur to the lines located at the T891 Q trailer, the following steps are taken to resume normal operations:

1. Pipes are drained and lines are emptied until power to heat trace is restored.